

REMARKS

Favorable reconsideration of this application in light of the following discussion is respectfully requested.

Claims 1-3 and 5-29 are presently active in this case. The present Amendment, without prejudice, amends Claim 1-3, 5-9, 11-12, 14-18, 20-24 and 26, cancels Claim 4, and adds Claims 27-29.

In the outstanding Office Action, the specification was objected to because of informalities. Claims 1-2, 4-11 and 21-26 were rejected under 35 U.S.C. § 102(b) as anticipated by Kamon (U.S. Patent No. 5,920,646). Claim 3 was rejected under 35 U.S.C. § 103(a) as unpatentable over Kamon in view of Hong (U.S. Patent No. 5,457,546). Claims 12-20 were rejected under 35 U.S.C. § 103(a) as unpatentable over Kamon in view of Accad (U.S. Patent No. 5,553,200).

In response to the objections to the specification, the specification is amended to correct the noted informalities. In light of their formal nature, the changes to the specification do not raise a question of new matter.

To clarify the claimed invention, independent Claims 1 and 26 are amended. Amended Claims 1 and 26 include limitations of cancelled Claim 4. Also, in Claim 1 features of a "first and second control signal source" of the smoothing unit are deleted, and the original image data is now clarified as "multiple value image data." Claim 4 is thus canceled, and new Claims 27-29 are also added. New Claim 27 depends on Claim 1, and includes features from the original content of Claim 1, and to specifically recite the smoothing unit further comprising "a first control signal source" and "a second control signal source." New Claim 28 recites features of original Claim 21 and new Claim 29 recites features of original Claim 22. Therefore new Claims 27-29 find support in the disclosure as

originally filed and are not believed to raise a question of new matter.¹ In view of the amendments to the independent Claims 1 and 26, the rejections of the claims are now moot.

In response to the rejections of Claims 1-2, 4-11 and 21-26 under 35 U.S.C. § 102(b), Applicants respectfully request reconsideration of the rejections and traverse the rejections as discussed next.

Briefly recapitulating, the claimed inventions relate to an image forming apparatus including a smoothing unit, the smoothing unit including a selector selecting one of (1) original image data, which is a multiple value image data, and (2) smoothed image data, which is a binarized image data. As explained in the specification at page 7, lines 16-25, the claimed invention improves upon conventional smoothing processes in image forming apparatuses by preventing a gradation in an image represented by multiple value image data from being deteriorated by an unnecessary smoothing process.

Turning now to the applied prior art, the Kamon patent discloses a multi-value processing unit 101 including a pattern memory 106, a multi-value filter 107, an FF/00 converter 108, a determination unit 109, and a selector 110. The multi-value processing unit 101 can perform the multi-value processing in three modes.² However, Kamon fails to teach a selector selecting **one of (1) the original image data, which is multiple value image data, and (2) a binarized image data**. On the contrary, Kamon explicitly teaches that the FF/00 converter 108 converts binary image data into a 10-bit format³ and teaches that image data stored in the memory unit 100 in the format of one bit per pixel must be converted into 10-bit data in a similar manner after it is read from the memory unit 100 and before it is sent to the LD control circuit 20.⁴ A 10-bit data, as disclosed by Kamon, is **not** a binarized image data.

¹ See MPEP 2163.06 stating that "information contained in any one of the specification, claims or drawings of the application as filed may be added to any other part of the application without introducing new matter."

² See Kamon at column 11, lines 7-13 and in Fig. 3.

³ See Kamon at column 12, lines 8-9.

⁴ See Kamon at column 10, line 66 to column 11, line 2 and in Fig. 3.

Moreover, in Kamon, there is no possibility that the selector 110 can choose between (1) an **original image data** and (2) a **smoothed image data**. As seen in Fig. 3 of Kamon, any data provided to the selector 106 must be fed through one of the units 106, 107 and 108, and therefore is provided either by the multi-value gradation process unit 191 or the binary gradation process unit 192.⁵ The gradation process unit 191 and the binary gradation process unit 192 are elements of the gradation process circuit 19.⁶ An image processed by a multi-value gradation process unit 191 or a binary gradation process unit 191, as disclosed by Kamon, **is not** an original image data.

Therefore, Kamon fails to teach or suggest every feature recited in the claims as currently written, so that Claims 1-3 and 5-29 are patentably distinct over Kamon. Moreover, none of the further applied art to Hong or Accad is believed to overcome the deficiencies in Kamon discussed above. Accordingly, Applicants respectfully traverse, and request reconsideration of, the rejections based on the Kamon patent, and further in view of Hong or Accad.⁷

Consequently, in view of the present amendment, no further issues are believed to be outstanding in the present application, and the present application is believed to be in condition for formal Allowance. A Notice of Allowance for Claims 1-3 and 5-29 is earnestly solicited.

⁵ See Kamon in Fig. 2 and in Fig. 3.

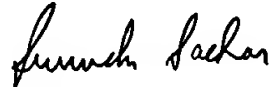
⁶ See Kamon at column 10, lines 19-22.

⁷ See MPEP 2131: "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference," (Citations omitted) (emphasis added). See also MPEP 2143.03: "All words in a claim must be considered in judging the patentability of that claim against the prior art."

Should the Examiner deem that any further action is necessary to place this application in even better form for allowance, the Examiner is encouraged to contact Applicant's undersigned representative at the below listed telephone number.

Respectfully submitted,

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